Comparisons of Job Characteristics

Focus Occupation: Medical and Clinical Laboratory Technologists (29-2011)
Associated Occupation: Medical and Clinical Laboratory Technicians (29-2012)

Compare Knowledge
Compare Skills
Compare Abilities
Compare Detailed Work Activities
Compare Tools and Technologies

<<	Focus occupation element is much lower
<	Focus occupation element is lower
0	Focus occupation element is at a similar level
>	Focus occupation element is at a higher level
>>	Focus occupation element is at a much higher level

Knowledge

Similarity of Focus Occupation to Associated Occupation: 84

Focus Occupation: Medical and Clinical Laboratory Technologists (29-2011)
Associated Occupation: Medical and Clinical Laboratory Technicians (29-2012)

Associated Occupation's Key Knowledge Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Chemistry	4.8	17.5	11.9	<<	Extensive education and/or training may be required
Customer and Personal Service	11.3	12.9	8.9	<<	Extensive education and/or training may be required
Medicine and Dentistry	3.7	12.8	10.1	<	Expanded education and/or training may be required
Biology	3.7	12.3	16.7	>>	Current knowledge level is likely more than sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Skills

Similarity of Focus Occupation to Associated Occupation: 88

Focus Occupation: Medical and Clinical Laboratory Technologists (29-2011)
Associated Occupation: Medical and Clinical Laboratory Technicians (29-2012)

Associated Occupation's Key Skills Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Science	4.5	10.8	10.9	0	Current skill level may be sufficient
Operation Monitoring	6.6	9.5	7.4	<	A higher skill level may be required
Quality Control Analysis	5.9	8.9	7.1	<	A higher skill level may be required
Equipment Maintenance	3.5	7.4	4.6	<<	Extensive development of skills in this area may be required
Troubleshooting	4.5	7.3	5.2	<<	Extensive development of skills in this area may be required
Equipment Selection	3.3	6.4	3.9	<<	Extensive development of skills in this area may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Abilities

Similarity of Focus Occupation to Associated Occupation: 96

Focus Occupation: Medical and Clinical Laboratory Technologists (29-2011)
Associated Occupation: Medical and Clinical Laboratory Technicians (29-2012)

Associated Occupation's Key Abilities Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating		Evaluation of Focus Occupation
Finger Dexterity	7.6	11.0	10.9	0	Current ability level may be sufficient
Flexibility of Closure	7.8	9.8	11.7	>	Current ability level is likely sufficient
Visual Color Discrimination	6.4	9.3	9.8	0	Current ability level may be sufficient
Perceptual Speed	7.4	9.1	9.3	0	Current ability level may be sufficient
Number Facility	6.3	8.7	7.3	<	Some improvement in abilities may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Activities that Both Occupations Have in Common

Similarity of Focus Occupation to Associated Occupation: 100

Focus Occupation: Medical and Clinical Laboratory Technologists (29-2011)
Associated Occupation: Medical and Clinical Laboratory Technicians (29-2012)

Work Activities	Exclusivity of Activity
Adhere to safety procedures	12
Analyze biological research, test, or analysis data	70
Analyze chemical experimental, test, or analysis data or findings	69
Analyze medical data	57
Analyze scientific research data or investigative findings	27
Calculate medical diagnostic test results	89
Collect blood or tissue samples	92
Collect scientific or technical data	30
Communicate technical information	4
Conduct analyses or tests of biological material samples	85
Conduct analyses or tests of organic compounds	71
Conduct laboratory research or experiments	57
Conduct medical laboratory tests	87
Conduct standardized qualitative laboratory analyses	62
Conduct standardized quantitative laboratory analyses	62
Conduct tests or analyses of blood samples	89
Create mathematical or statistical diagrams or charts	43
Cultivate micro-organisms for study, testing, or medical preparations	84
Direct and coordinate activities of workers or staff	3

Draw blood	74
Enter analysis of medical tests or clinical results into computer for storage	99
Examine biological or other material specimens under microscope	73
Follow infectious materials procedures	52
Follow microbiology procedures	74
Follow safe waste disposal procedures	50
Isolate and identify micro-organisms	82
Label blood samples	99
Maintain laboratory or field equipment	87
Maintain records, reports, or files	5
Monitor worker performance	57
Perform statistical analysis	71
Prepare biological specimens for examination	84
Prepare reports	8
Prepare sample for laboratory testing, analysis, or microscopy	74
Prepare vaccines, biologicals, or serums	85
Record test results, test procedures, or inspection data	48
Set up or calibrate laboratory equipment	78
Sterilize or clean laboratory or healthcare equipment	82
Store medical laboratory specimens	99
Teach individuals work-related techniques or skills	80
Understand technical operating, service or repair manuals	6
Use biological testing instruments	73
Use chemical testing or analysis procedures	54
Use clinical sterilizing technique	71
Use computers to enter, access or retrieve data	3
Use hazardous materials information	35
Use health or sanitation standards	62
Use knowledge of medical terminology	40
Use knowledge of metric system	39
Use laboratory equipment	60
Use mathematical or statistical methods to identify or analyze problems	30
Use medical lab techniques	81
Use microscope	71
Use precision measuring tools or equipment	17
Use quality assurance techniques	61
Use quantitative research methods	35
Use relational database software	26
Use research methodology procedures in health care	63
Use sanitation practices in health care settings	48
Use scientific research methodology	21
Use spreadsheet software	18
Use word processing or desktop publishing software	17
Verify completeness or accuracy of data	85

Not all positions in these occupations will necessarily perform all of the listed activities. The exclusivity rating is an indication of how unique the activity is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations engage in that activity.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Tools and Technologies that Both Occupations Have in Common

Similarity of Focus Occupation to Associated Occupation: 95

Focus Occupation: Medical and Clinical Laboratory Technologists (29-2011)
Associated Occupation: Medical and Clinical Laboratory Technicians (29-2012)

Tools and Technologies	Exclusivity
Autoclave and sterilizer equipment and accessories	12
Chromatographic measuring instruments and accessories	16
Clinical and diagnostic analyzers and accessories and supplies	18
Computer printers	2
Computers	1
Content authoring and editing software	1
Data management and query software	1
Diagnostic assessment and exam products for general use	21
Electrochemical measuring instruments and accessories	9
Fermentation equipment	31
Fluid mechanics equipment	11
Histology equipment	35
Indicating and recording instruments	2
Industry specific software	1
Information exchange software	1
Injection and aspiration needles and accessories	25
Laboratory centrifuges and accessories	13
Laboratory decanting and distilling and evaporating and extracting equipment and supplies	19
Laboratory enclosures and accessories	17
Laboratory heating and drying equipment	13
Laboratory incubating equipment	20
Laboratory microscope slides and supplies	20
Laboratory mixing and stirring and shaking equipment and supplies	19
Laboratory pumps and tubing	23
Laboratory washing and cleaning equipment	35
Length and thickness and distance measuring instruments	2
Light and wave generating and measuring equipment	4
Liquid and solid and elemental analyzers	19
Manual test kits and quality controls and calibrators and standards	33
Microorganism propagation and transformation media and kits and equipment	47
Patient point of care testing supplies and equipment	23
Pipettes and liquid handling equipment and supplies	16
Specimen collection and transport containers and supplies	14
Spectroscopic equipment	10
Surgical support supplies	33
Syringes and accessories	14
Test Tubes	26
Tissue culture and high throughput screening supplies	31
Viewing and observing instruments and accessories	4
Weight measuring instruments	7

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.